

## CLAIMS

What is claimed is:

- 5 1) A method for determining a file system layout on a disk comprising:
  - a) providing a default file system layout comprising a root partition, a swap partition and a plurality of unassigned partitions;
  - b) assigning a size for each of said partitions;
  - c) sorting said partitions by said size assigned in said b) from largest  
10 to smallest;
  - d) identifying available free spaces on said disk for said unassigned partitions; and
  - e) assigning locations on said disk for said partitions from said largest to said smallest wherein said partitions are filled in said available free spaces  
15 identified in said d) from end to beginning of said available free spaces.
- 2) The method as described in Claim 1 wherein said size assigned in said b) is measured in cylinders.
- 20 3) The method as described in Claim 2 further comprising converting said size measured in cylinders to megabytes.

4) The method as described in Claim 3 wherein said size converted to megabytes is rounded to a minimum number of megabytes represented by said size measured in cylinders without changing the number of megabytes.

5 5) The method as described in Claim 1 further comprising providing a graphical user interface for completing said b).

6) The method as described in Claim 1 wherein said swap partition is assigned to one of said available free spaces.

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7) The method as described in Claim 1 further comprising identifying a preserved partition, wherein said preserved partition retains a location and a size.

8) A method for determining a file system layout on a disk comprising:

15 identifying preserved blocks of said disk, each of said preserved blocks having a size and a location on said disk;

identifying free blocks of disk space, each having a size;

identifying allocated blocks of said disk, each having a size;

sorting said allocated blocks from largest to smallest based on size; and

20 assigning each of said allocated blocks to free blocks from largest to smallest wherein said free blocks are filled from end of said free block to beginning of said free block.

9) The method as described in Claim 8 wherein said size is measured in cylinders.

5 10) The method as described in Claim 9 further comprising converting said size measured in cylinders to megabytes.

11) The method as described in Claim 10 wherein said size converted to megabytes is rounded to a minimum number of megabytes represented by said  
10 size measured in cylinders.

12) The method as described in Claim 9 wherein one of said preserved partitions is a swap partition and is assigned to the beginning of said disk.

15 13) In a computer system comprising a processor coupled to a bus and a memory coupled to said bus, a computer readable medium comprising instructions that when executed implement a method of determining a file system layout on a disk said method comprising:

- a) providing a default file system layout comprising a root partition, a  
20 swap partition and a plurality of unassigned partitions;
- b) assigning a size for each of said partitions;

c) sorting said partitions by said size assigned in said b) from largest to smallest;

d) identifying available blocks of free space on said disk for said unassigned partitions;

5 e) assigning locations on said disk for said partitions from said largest to said smallest wherein said partitions are filled in said available blocks identified in said d) from end to beginning of said available blocks.

14) The computer readable medium as described in Claim 13 wherein said  
10 size assigned in said b) is measured in cylinders.

15) The computer readable medium as described in Claim 14 wherein said method further comprises converting said size measured in cylinders to megabytes.

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16) The computer readable medium as described in Claim 15 wherein said size converted to megabytes is rounded to a minimum number of megabytes represented by said size measured in cylinders.

20 17) The computer readable medium as described in Claim 13 wherein said method further comprises providing a graphical user interface for completing said b).

18) The computer readable medium as described in Claim 13 wherein said swap partition is assigned to the beginning of said disk.

5 19) The computer readable medium as described in Claim 13 wherein said method further comprises identifying a preserved partition, wherein said preserved partition retains a location and a size.

20) A system for determining a file system on a disk comprising:

10 a disk coupled to a bus;

a processor coupled to said bus for determining a default file system on said disk;

a graphical user interface for modifying said default file system layout, including preserving a partition and wherein said default file system layout can be

15 modified in megabytes and cylinders.

22. The system as described in Claim 20 wherein said default file system comprises a root partition and a swap partition.

20 23. The system as described in Claim 20 wherein a size of a partition is converted from cylinders to megabytes wherein a minimum number of megabytes represented by a number of cylinders.

24. The system as described in Claim 20 further comprising an operating system installer wizard for installing an operating system on said system.
- 5 25. The system as described in Claim 24 wherein said operating system installer wizard is java based.